### **DDB**629

	PAK	Floor		$\mathcal{V}$	1
Contestant Name/# _	111/18	( )40( )	County/Chapter_	Ney	Site #

# North Dakota Range Judging Card

# Ecological Site ©



North Dakota Ecological Site Key (Choose one)	
I. Restrictive to Root Growth: These sites have a limiting layer within 20 inches of the surfof rock, gravel, stone or restrictive clay (hard pan), which restricts most root growth beyond this layer for restriction, go to II)	
A. Limiting layer is rock, scoria, gravel, or stone	
B. Limiting layer is restrictive clay	
II. Non-Restrictive to Root Growth: These sites do not have a restrictive layer within 20 inches of the soil surface.	
C. Lowlands — These sites receive additional moisture from occasional stream overflow, ru from adjacent slopes or during major flooding events. (If no additional moisture occurs, go	
No water table within 5 feet from surface, typically found in swales,     no salt deposits on soil surface  Overflow	
Water table within 5 feet from surface     This site will have salts evident on the surface when drySaline Lowland	
D. Uplands —These sites do not receive additional moisture from occasional stream overflow, run-in from adjacent slopes, or during major flooding events.	
These sites occur on slopes usually less than 15%     a. Soils will not form a firm ball when wet, coarse	
b. Soils will form a firm ball and produce a short ribbon less than  1 inch, feel gritty	
c. Soils will form a ribbon up to 2 inches and not feel gritty, like flour when dryLoamy	
d. Soils form a ribbon greater than 2 inches, support their own weight and feel greasy when wet	
2. These sites occur on sidehills with slopes usually greater than 15%	
a. This site is found on glaciated soils <i>east</i> of the Missouri River, thin top soil	×
b. This site is found on nonglaciated soils <i>west</i> of the Missouri River, thin top soil Limy Backslope	

Similarity Index (Choose one)	Carrying Capacity. 015 HUMD.
Excellent (76 to 100%)  Good (51 to 75%)  Eair (26 to 50%)	200 coulcast pairs: June 1- Oct 6 bulls: July 1- Sep
Poor (0 to 25%)	Water: 1.25 miles away
Sharp-tailed Grouse Site Evaluation	Beef Cattle Site Evaluation
Nesting Cover  A) Desirable Nesting Plants  > 30% aerial cover	Forage Value (desirable plants)  Excellent (76 to 100%)  Good (51 to 75%)  Fair (26 to 50%)  Poor (0 to 25%)  Stocking Rate (Given on Site Key)  Increase  Decrease  Keep the same
Food habitat (desirable plants)  > 30% by weight	Distribution Factors  A) Slope  < 5%
> 30% aerial cover	> 15%
	2) Woody canopy: > 30%
Recommended Management Practices Sharp-tailed Grouse Continue present management	Recommended Management Practices Beef
Decrease stocking rate	Continue present management
	Defer one or more grazing seasons

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, telgion, sex, sexual orientation, spousal relationship to current empkyee, or veteran status, as applicable. Direct inquiries to Vice Provost for Title IX/ADA Coordinator, Old Main 201, NDSU Main Campus, 701-231-7708, ndsu.eoaa dindsu, edu. This publication will be made available in alternative formats for people with disabilities upon request, 701-231-7881.

SILCHI

PINKIAGS

Vegetation	_(	Ov - Site	SL - Comr	Sw (	TL) Maximu	Sa m¹ -	Observed Composition <sup>2</sup>	Amount Allowable <sup>3</sup>
		84	86	81	90	75		
Grasses Green needlegrass  Porcupine grass	]	15	00	20	15	, 0	25	15
Western wheatgrass Slender wheatgrass	}	12	25	10	20	5		
√ Needle-and-thread		4			10	15		8
$\chi$ Prairie sandreed						30	<u>(Z)</u>	
Blue grama				6	10		/ 5	5
Little bluestem Sideoats grama	}	5		20	15	10	40	_15
▼ Big bluestem Switchgrass Sand bluestem	_	35		15	10			
Nuttall's alkaligrass			25				\	
Prairie cordgrass Inland saltgrass	}		20					•
X Plains muhly Sand dropseed Prairie Junegrass Red threeawn Prairie dropseed Other native grass	en_lo	13/	) 15	10	5	15	2+1+7	_ 5
Invaders							***************************************	0
Sedges  K Upland sedge  Midland sedge	·	7	5	5	5	10		2
Forbs and legumes Natives Invaders		7	5	10	8	10		8
Woodies Natives		2	5	4	2	5		2
Invaders				100%	/6		100% Index	60

Similarity Index: 0 to 25 = Poor; 26 to 50 = Fair; 51 to 75 = Good; 76 to 100 = Excellent

Ov - Overflow, SL - Saline Lowland, Sw - Shallow, TL - Thin Loamy, Sa - Sands

<sup>&</sup>lt;sup>1</sup>Modified from NRCS Technical Guide

<sup>&</sup>lt;sup>2</sup>Visual estimation made by judger

<sup>&</sup>lt;sup>3</sup>The smaller value from two previous columns

Vagatation		Sy	Ly	Cy	Cp imum1	Observed	Amount
Vegetation		ATTACHMENT TO A TO A SOURCE ACCORD			imum¹ -	Composition <sup>2</sup>	Allowable <sup>3</sup>
Grasses		80	80	90	77		
Green needlegrass Porcupine grass		5	20	25	15		
Western wheatgrass Slender wheatgrass		10	20	35	30		
Needle-and-thread		10	10	5	5	44-1-1	Name of the second seco
Prairie sandreed		20					
Blue grama		10	10	10	15		
Little bluestem Sideoats grama	}	5		5			·
Big bluestem Switchgrass Sand bluestem		10	10				
Plains muhly Sand dropseed Prairie Junegrass Red threeawn Prairie dropseed Other native grass		5	10	10	12		
Invaders							0 .
Sedges Upland sedge Midland sedge		5	5	2	10		
Forbs and legumes  Natives Invaders		10	10	5	10		
Woodies Natives		5	5	3	3		
Invaders							0
•			1	00%		100%	
						Index	

Similarity Index: 0 to 25 = Poor; 26 to 50 = Fair; 51 to 75 = Good; 76 to 100 = Excellent

Sy - Sandy, Ly - Loamy, Cy - Clayey, Cp - Claypan

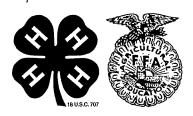
<sup>&</sup>lt;sup>1</sup>Modified from NRCS Technical Guide <sup>2</sup>Visual estimation made by judger <sup>3</sup>The smaller value from two previous columns

### **DDB629**

Contestant Name/# _	Blue	Flage	County/Chapter_	Key	Site #
		γ, ι		1 /	

# North Dakota Range Judging Card

# Ecological Site



North Dakota Ecological Site Key (Choose one	North	Dakota	<b>Ecological</b>	Site	Key	(Choose one
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Vor	th Dakota Ecological Site Key (Choose one)	
of roc	Restrictive to Root Growth: These sites have a limiting layer within 20 inches of the surfack, gravel, stone or restrictive clay (hard pan), which restricts most root growth beyond this lay restriction, go to II)	
	A. Limiting layer is rock, scoria, gravel, or stone	
	B. Limiting layer is restrictive clay	
	Non-Restrictive to Root Growth: These sites do not have a restrictive layer within 20 inches of the soil surface.	
	C. Lowlands — These sites receive additional moisture from occasional stream overflow, rule from adjacent slopes or during major flooding events. (If no additional moisture occurs, go	
	No water table within 5 feet from surface, typically found in swales,     no salt deposits on soil surfaceOverflow	×
	Water table within 5 feet from surface     This site will have salts evident on the surface when drySaline Lowland	<u> </u>
	<b>D. Uplands</b> —These sites do not receive additional moisture from occasional stream overflow, run-in from adjacent slopes, or during major flooding events.	
	1. These sites occur on slopes usually less than 15%	<b>,</b>
	a. Soils will not form a firm ball when wet, coarse	السيا
	b. Soils will form a firm ball and produce a short ribbon less than  1 inch, feel grittySandy	
	c. Soils will form a ribbon up to 2 inches and not feel gritty, like flour	
	when dry Loamy d. Soils form a ribbon greater than 2 inches, support their own weight	<b>'</b>
	and feel greasy when wet	
	2. These sites occur on sidehills with slopes usually greater than 15%	
	a. This site is found on glaciated soils <i>east</i> of the Missouri River,     thin top soil	
	b. This site is found on nonglaciated soils <i>west</i> of the Missouri River, thin top soil Limy Backslope	

AUE: 1 yearling row: 0.75 1 sheep = 0.20 Carrying Capacity: 3,650 Aums

Similarity Index (Choose one)	Carrying CARACITY: 3,650 Aums
Excellent (76 to 100%)  Good (51 to 75%)  Fair (26 to 50%)  Poor (0 to 25%)  Excellent (76 to 100%)  Good (51 to 75%)  A 3 5 7 0	Carrying Capacity: 3,650 Aums 1,000 yearling calle: June 1- Nove 500 sheep: July 1- Oct Water: 1.0 mle away
Sharp-tailed Grouse Site Evaluation	Beef Cattle Site Evaluation
Nesting Cover  A) Desirable Nesting Plants  > 30% aerial cover	Forage Value (desirable plants)  Excellent (76 to 100%)  Good (51 to 75%)  Fair (26 to 50%)  Poor (0 to 25%)  Stocking Rate (Given on Site Key)  Increase  Decrease
Food habitat (desirable plants)  > 30% by weight	Keep the same  Distribution Factors  A) Slope  < 5%
Protective Cover (% woody cover)  > 30% aerial cover	5 to 10%
	2) Woody canopy: > 30%
Recommended Management Practice Sharp-tailed Grouse	
Continue present management.  Improve nesting cover.  Decrease stocking rate.  Add more livestock grazing or burn.  Improve food habitat.  Improve protective cover.  Apply woody plant control.	Recommended Management Practices Beef  Continue present management

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# Site 2 Blue Flags

## 53 Major Land Resource Area

/egetation	(	Ov - Sit	SL e Comp	Sw oosition I	TL Maximu	Sa_ ım¹ -	Observed Composition <sup>2</sup>	Amount Allowable³
Grasses		84	86	81	90	75		
Green needlegrass Porcupine grass	}	15		20	15		5	5
Western wheatgrass Slender wheatgrass	_	12	25	10	20	5	3	3
Needle-and-thread		4			10	15		
Prairie sandreed						30		
Blue grama				6	10			
Little bluestem Sideoats grama	]	5		20	15	10		
Big bluestem Switchgrass Sand bluestem		35		15	10		8	8
Nuttall's alkaligrass			25					
Prairie cordgrass Inland saltgrass			20					
Plains muhly Sand dropseed Prairie Junegrass Red threeawn Prairie dropseed Other native grass		13	15	10	5	15		Accessed to the second
Invaders Brame	2,0	cjø u	- heat	, Blu	eg(A)	2	54	0
<b>Sedges</b> Upland sedge Midland sedge		7	5	5	5	10		
Forbs and legumes Natives Invaders		7	5	10	8	10	5	5
<b>Woodies</b> Natives Invaders		2	5	4	2	5	30	
111100000		,		100%	<u></u>		100%	
				.007	-		Index	$\frac{1}{2}$

Similarity Index: 0 to 25 = Poor; 26 to 50 = Fair; 51 to 75 = Good; 76 to 100 = Excellent

Ov - Overflow, SL - Saline Lowland, Sw - Shallow, TL - Thin Loamy, Sa - Sands

<sup>&</sup>lt;sup>1</sup>Modified from NRCS Technical Guide

<sup>&</sup>lt;sup>2</sup>Visual estimation made by judger

<sup>&</sup>lt;sup>3</sup>The smaller value from two previous columns

Vegetation	-	Sy - Site C	Ly Composit	Cy ion Max	Cp imum¹ -	Observed Composition <sup>2</sup>	Amount Allowable³
Grasses		80	80	90	77		
Green needlegrass Porcupine grass	]	5	20	25	15		
Western wheatgrass - Slender wheatgrass -		10	20	35	30		
Needle-and-thread		10	10	5	5		
Prairie sandreed		20					
Blue grama		10	10	10	15		
Little bluestem Sideoats grama		5		5			
Big bluestem Switchgrass Sand bluestem		10	10				
Plains muhly Sand dropseed Prairie Junegrass Red threeawn Prairie dropseed Other native grass		5	10	10	12		<b>.</b>
Invaders							0
Sedges Upland sedge Midland sedge		5	5	2	10		
Forbs and legumes  Natives Invaders		10	10	5	10	-	0
Woodies Natives		5	5	3	3		,
Invaders							0
			1	00%		100%	***************************************
				1		Index	

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Sy - Sandy, Ly - Loamy, Cy - Clayey, Cp - Claypan

<sup>&</sup>lt;sup>1</sup>Modified from NRCS Technical Guide

<sup>&</sup>lt;sup>2</sup>Visual estimation made by judger

<sup>&</sup>lt;sup>3</sup>The smaller value from two previous columns

Contestant Name/#	Yellow Flags	County/Chapter	Site # <u>3</u>
	(	,	

# North Dakota Range Judging Card

# Ecological Site ©



orth Dakota Ecological Site Key (Choose one)		
I. Restrictive to Root Growth: These sites have a limiting layer within 20 inches of the rock, gravel, stone or restrictive clay (hard pan), which restricts most root growth beyond the no restriction, go to II)		
A. Limiting layer is rock, scoria, gravel, or stone		
II. Non-Restrictive to Root Growth: These sites do not have a restrictive layer within 20 inches of the soil surface.		
C. Lowlands — These sites receive additional moisture from occasional stream overflow from adjacent slopes or during major flooding events. (If no additional moisture occurs		
No water table within 5 feet from surface, typically found in swales,     no salt deposits on soil surface  Overflet	ow <sup>[</sup>	
Water table within 5 feet from surface     This site will have salts evident on the surface when drySaline Lowland	nd	
D. Uplands —These sites do not receive additional moisture from occasional stream overflow, run-in from adjacent slopes, or during major flooding events.		
These sites occur on slopes usually less than 15%     a. Soils will not form a firm ball when wet, coarse	ds	
1 inch, feel grittySar  c. Soils will form a ribbon up to 2 inches and not feel gritty, like flour	dy	
when dry	my	Ø
and feel greasy when wetClay	ey	
These sites occur on sidehills with slopes usually greater than 15%     a. This site is found on glaciated soils <i>east</i> of the Missouri River,     thin top soil	mv	
b. This site is found on nonglaciated soils <i>west</i> of the Missouri River, thin top soil	-	

A
CARRYING CARPERTY: 1,525 AUM
Carrying Capacity: 1,525 Aumi 1500 goats: May 1-Oct 1
Water: 1.25 miles away
Beef Cattle Site Evaluation
Forage Value (desirable plants)  Excellent (76 to 100%)
Stocking Rate (Given on Site Key) Increase Decrease Keep the same
Distribution Factors  A) Slope  < 5%
11 to 15%
< 30%
Recommended Management Practices
Beef  Continue present management

Control noxious weeds .....,

Site 3

Yellow Flags

### 53 Major Land Resource Area

	Sy	(Ly)	Су	Ср	Observed	Amount	
Vegetation	- Site C	omposit	ion Maxi	mum¹ -	Composition <sup>2</sup>	Allowable <sup>3</sup>	
Grasses	80	80	90	77			
Green needlegrass Porcupine grass	. 5	20	25	15	_5_	5	
Western wheatgrass Slender wheatgrass	10	20	35	30			
Needle-and-thread	10	10	5	5	30	10	
Prairie sandreed	20					Remarkable for the second seco	
Blue grama	10	10	10	15		2	
Little bluestem Sideoats grama	- 5		5		(45)	-	
Big bluestem Switchgrass Sand bluestem	10	10					
Plains muhly — 2 Sand dropseed Prairie Junegrass — 2 Red threeawn — 3 Prairie dropseed Other native grass	- 5	10	10	12	7+45	10	
Invaders						0	
Sedges Upland sedge Midland sedge	5	5	2	10	2	<u> </u>	
Forbs and legumes Natives Invaders	10	10	5	10		7	
Woodies Natives Invaders	5	5	3	3	2	2	
		1	00%	-	100%		
					Index	_38	

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		Ov	SL	Sw	TL	Sa	Observed	Amount
Vegetation		- Sit	e Com	oosition	Maximı •	Composition <sup>2</sup>	Allowable <sup>3</sup>	
Grasses		84	86	81	90	75		
Green needlegrass Porcupine grass	}	15		20	15			
Western wheatgrass Slender wheatgrass	]	12	25	10	20	5		
Needle-and-thread		4			10	15		
Prairie sandreed						30		
Blue grama				6	10			
Little bluestem Sideoats grama		5		20	15	10		
Big bluestem Switchgrass Sand bluestem		35		15	10			
Nuttall's alkaligrass			25					
Prairie cordgrass Inland saltgrass	}		20				***************************************	
Plains muhly Sand dropseed Prairie Junegrass Red threeawn Prairie dropseed Other native grass		13	15	10	5	15	<del></del>	
Invaders								0
Sedges Upland sedge Midland sedge		7	5	5	5	10		•
Forbs and legumes		7	5	10	8	10		
Natives Invaders								0
Woodies Natives		2	5	4	2	5		
Invaders								0
				100%	)	AA-, WAAR AA	100%	
							Index	

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<sup>&</sup>lt;sup>3</sup>The smaller value from two previous columns

# "Plants for Contost"

## Plant Key

### GRASSES

- X1. Bearded wheatgrass
- X2. Big bluestem
  - 3. Blue bunch wheatgrass
- X4. Blue grama
  - 5. Buffalograss
  - 6. Canada wildrye
  - 7. Cattail species
  - 8. Crested wheatgrass
  - 9. Cheatgrass
- 10. Foxtail barley
- ★11. Green needlegrass
  - 12. Indian ricegrass
  - 13. Indiangrass
  - 14. Inland saltgrass
- √ 15. Kentucky bluegrass
- χ16. Little bluestem
- ¥17. Needle-and-thread
  - 18. Northern reedgrass
  - 19. Nuttall's alkaligrass
- X20. Plains muhly
- <sup>⋆</sup> 21. Porcupine grass
  - 22. Prairie cordgrass
  - 23. Prairie dropseed
- ★24. Prairie Junegrass
- ★ 25. Prairie sandreed
- 🗙 26. Red threeawn
  - 27. Reed canarygrass
  - 28. Sand bluestem
  - 29. Sand dropseed
  - 30. Sandberg bluegrass
  - 31. Sixweeks fescue
- X32. Sideoats grama
- ¥33. Smooth bromegrass
  - 34. Switchgrass
  - 35. Tumblegrass
- ¥ 36. Western wheatgrass
  - 37. Wilcox panicum

### **SEDGES** and **RUSHES**

- 38. Baltic rush
- 39. Slough sedge
- X40. Upland sedge

### **CRYPTOGAMS**

- 41. Clubmoss
- 42. Horsetail

### **FORBS**

- 43. Absinth wormwood
- 44. American licorice
- 45. American vetch
- 46. Ball cactus
- X47. Beards tongue
- ¥48. Black samson
  - 49. Blanket flower
  - 50. Blue lettuce
  - 51. Blue-eyed grass
  - 52. Bracted spiderwort
  - 53. Canada thistle
- ¥ 54. Cudweed sagewort
  - 55. Curly dock
  - 56. Curlycup gumweed
  - 57. Cutleaf goldenweed
- ¥ 58. Daisy fleabane
- 59. Dandelion
- 38. Danuelloi
- 60. Deervetch
- ζ 61. Dotted gayfeatherζ 62. Fringed sagewort
- ¥ 63. Goatsbeard
- x 64. Green sagewort
- L65. Hairy goldaster
- X66. Heath aster
- ₹ 67. Hoods phlox
  - 68. Indian breadroot
  - 69. Lamberts crazyweed
  - 70. Leafy spurge
  - 71. Mariposa lily
- √72. Milkvetch species
  - 73. Missouri goldenrod
  - 74. Pasque flower
  - 75. Plains pricklypear
- √ 76. Prairie coneflower
- ¥77. Prairie thistle
  - 78. Prairie smoke
- ₹79. Purple prairie clover

### FORBS (continued)

- 80. Pussytoes
- 81. Scarlet globemallow
- 82. Scarlet gura
- 83. Silverleaf scurfpea
- ¥84. Skeletonweed
- X 85. Soft goldenrod
- X 86. Stiff goldenrod
- X87. Sunflower species
  - 88. Sweetclover
  - 89. Western wallflower
- - 91. White milkwort
  - 92. White prairie clover
- ¥93. Wild flax
  - 94. Wild onion
  - 95. Wooly plantain

### SHRUBS and HALF-SHRUBS

- 96. Big sagebrush
- X 97. Broom snakeweed
  - 98. Creeping juniper
  - 99. Leadplant
  - 100. Nuttall saltbush
- ★ 101. Prairie rose
  - 102. Rabbit brush
  - 103. Shrubby cinquefoil
  - 104. Silver sagebrush
  - 105. Skunk brush sumac
  - 106. Yucca
- X107. Western snowberry
  - 108. Winterfat

### TREES

- X109. Buffaloberry
  - 110. Bur oak
- 111. Chokecherry
  - 112. Cottonwood
  - 113. Green ash
  - 114. Rocky Mountain juniper
  - 115. Juneberry
  - 116. Silverberry

		·